

displaying at one of said output devices a television program that promotes a multimedia product or service;

inputting a subscriber command;

controlling said receiver station to receive a signal in response to said subscriber command, said received signal [comprising a] an instruct signal which permits the operation of the receiver station in a designated media operation;

detecting the presence of at least two [or more] instruct-to-coordinate signals at said receiver station, each instruct-to-coordinate signal designating at least one [or more] of:

- (1) a portion of a multimedia programming signal to receive;
- (2) a portion of a multimedia programming signal to communicate to a memory location;
- (3) a digital datum to record or play;
- (4) a portion of a multimedia programming signal to communicate to a processor;
- (5) a portion of a television signal to communicate at least one of to a television monitor [or] and a television recorder/player;
- (6) two portions of a multimedia presentation to communicate from separate locations to an output device, with at least one of said separate locations being a memory or storage location;
- (7) a multimedia presentation graphic to generate; and
- (8) a place to present [some] multimedia output; and

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communicating at least one [or more] unit[s] of multimedia programming in response to said at least two [or more] instruct-to-coordinate signals; and outputting multimedia programming at said receiver station.

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3. ~~The method of claim 2, further comprising the step of programming said receiver station to store a data portfolio, said data portfolio comprising at least one [or more] identification data of financial securities, and to receive and process news items related to said financial securities in said data portfolio, said news items comprising financial data.~~

4. ~~The method of claim 2, further comprising the step of programming said receiver station to respond to instructions associated with a television signal, said television signal comprising at least one [or more] unit[s] of television programming with each unit having an associated identification datum.~~

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5. ~~The method of claim 2, further [and] comprising the step of programming said receiver station to process at least one of television programming [or] and multimedia programming received from a remote source and present said at least one of television programming [or] and multimedia programming in at least one [or more] predetermined fashions.~~

6. ~~The method of claim 2, further comprising the steps of:  
processing said subscriber command based on one of said at least one [or more] instruct-to-coordinate signals; and~~

at least one of receiving [or] and enabling some programming to be coordinated based on said step of inputting and processing.

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7. The method of claim 2, further comprising the steps of:  
processing said [viewer's or participant's reaction] subscriber command based on one of said at least one [or more] instruct-to-coordinate signals; and  
outputting some programming at a second output device based on said step of inputting and processing.

NE 8. The method of claim 2, further comprising the steps of:  
processing said subscriber command; and  
communicating some information to a remote station based on said steps of inputting and processing.

9. A method of communicating subscriber station information from a subscriber station to at least one [or more] remote data collection stations, said method comprising the steps of:

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- (1) inputting a [viewer's or participant's] subscriber reaction at a subscriber station;
- (2) receiving at said subscriber station information that designates at least one of an instruct signal to process [or] and an output to deliver in consequence of specific subscriber input;
- (3) determining the presence of said specific subscriber input at said subscriber station by processing said [viewer's or participant's] subscriber reaction;

(4) processing an instruct signal which is effective to coordinate a multimedia programming presentation based on [a subscriber input at said subscriber station in consequence of] said step of determining; and

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(5) transferring from said subscriber station to said at least one [or more] remote data collection station[s an indicia] at least one datum at least one of confirming delivery of said instruct signal from said step of processing [or] and confirming delivery of said effect from said step of processing.

10. The method of claim 9, wherein at least one of said subscriber reaction and said instruct signal is input by a [subscriber] computer, said method further comprising the steps of:

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storing a subscriber instruction to receive at least one [or more] of specific mass medium programs, data, news items, [or] and computer control instructions; and

receiving at least one [or more] of said specific mass medium programs, data, news items, [or] and computer control [instructions] instructions in accordance with said computer control instruction.

11. The method of claim 9, wherein at least one of said subscriber reaction and said instruct signal is input by a [subscriber] computer, said method further comprising the steps of:

storing a subscriber instruction to one of process [or] and present at least one [or more] of mass medium programs, data, news items, [or] and computer control instructions in a specific fashion; and

processing or presenting at least one [or more] of specific mass medium programs, data, news items, [or] and computer control instructions in accordance with said instruction.

12. The method of claim 9, wherein said information that designates at least one of [a specific subscriber input [or] and] said instruct signal and said output to deliver is detected in an information transmission from at least one of a data [or] and programming source, said method further comprising the steps of:

programming a processor to respond to information communicated from said one of [a] said data [or] and said programming source;

receiving an information transmission from said one of said data [or] and said programming source;

inputting at least some of said information transmission to a control signal detector;

detecting one of data [or] and [an] said instruct signal in said information transmission; and

passing said one of detected data [or] and said instruct signal to said processor.

13. A method of controlling a remote transmitter station to communicate program material to a remote receiver station and controlling said remote receiver station to process a receiver specific response, said method [of controlling] comprising the steps of:

(1) receiving [a unit of] mass medium programming to be transmitted by the remote intermediate mass medium transmitter station and delivering said [unit of] mass medium programming to a transmitter;

(2) receiving at least one [or more] instruct signal[s] at said remote intermediate mass medium transmitter station, said at least one instruct signal[s] [operate] operative at the remote receiver station to coordinate a multimedia programming presentation based on a [response] subscriber reaction to information contained in said [unit of] mass medium programming, and communicating said at least one [or more] instruct signal to said transmitter;

(3) receiving at least one [or more] control signal[s] at said remote transmitter station said control signals control the communication of said [unit of] mass medium programming and said at least one [or more] instruct signal[s] between said remote transmitter station and said remote receiver station; and

(4) transmitting from said remote transmitter station [an] at least one information transmission [comprising] containing said [unit of] mass medium programming and said at least one [or more] instruct signal[s].

14. The method of claim 13, further comprising the step of embedding one of said at least one [or more control] instruct signal[s] in a signal containing said [unit of] mass medium programming before transmitting said [unit to] at least a portion of said mass medium programming from said remote transmitter station.

15. The method of claim 13, wherein said [unit of] mass medium programming [comprises] includes audio or text.

16. The method of claim 13, wherein said [unit of] mass medium programming [is] includes a television program.

17. The method of claim 13, wherein said at least one [or more] instruct signal[s] further comprises some downloadable executable code.

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18. A method of controlling a remote intermediate [data] transmitter station to communicate [data] at least one instruct signal to at least one [or more] receiver station[s], [with] said remote intermediate transmitter station including one of a broadcast [or] and cablecast transmitter [for transmitting one or more signals which are effective at a receiver station to instruct a computer or processor], a plurality of selective [transmission] transfer devices each operatively connected to said one of said broadcast [or] and said cablecast transmitter [for communicating a unit of data], a [data] receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and one of a controller [or] and computer capable of controlling at least one [or more] of said plurality of selective [transmission] transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one [or more] control signal[s], to control the communication of [specific] said at least one instruct signal[s] in response to [detected specific] said at least one control signal[s], and to deliver at [its] said one of said broadcast [or] and said cablecast transmitter said at least one [or more] instruct signal[s], said method [of communicating] comprising the steps of:

(1) receiving [an] said at least one instruct signal [to be transmitted by the remote intermediate data] at said at least one origination transmitter station and

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delivering said at least one instruct signal to a at least one origination transmitter, said at least one instruct signal being effective at [a] said at least one receiver station to coordinate a multimedia programming presentation based on a subscriber input;

(2) receiving said at least one [or more] control signal[s] which at the remote intermediate [data] transmitter station is operative to control the communication of said instruct signal; and

(3) transmitting said at least one [or more] control signal[s] to said at least one origination transmitter before a specific time.

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19. The method of claim 18, further comprising the step of embedding [a specific one of] said at least one [or more] control signal[s] in a signal containing said at least one instruct signal [or in an information transmission containing said at least one instruct signal] before transmitting at least a portion of said at least one instruct signal to said remote intermediate transmitter station.

20. The method of claim 18, wherein at least one of (i) said specific time is a scheduled time of transmitting said instruct signal or some information associated with said instruct signal from said remote intermediate [data] transmitter station and (ii) said at least one [or more] control signal[s are] is effective at said remote intermediate [data] transmitter station to control at least one [or more] of said plurality of selective [transmission] transfer devices at different times.

REMARKS



The Office Action dated February 13, 1997 has been carefully reviewed. In response thereto, claims 2-20 have been amended. No new matter is added by the claim amendments.

In paragraph 14 of the Office Action, claims 2-20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regard as the invention. Applicants respectfully submit that this rejection is overcome by this response. The Office Action states that the "examiner is not certain that the meets [sic] and bounds of these claims can be determined because of the language in the disclosure and claims." The Office Action further states that "[a]pplicants are being requested to reference the claim limitations in this application to the disclosure so that the meets [sic] and bounds of these claims can be properly considered." Applicants respectfully submit they are under no duty to prospectively reference claim limitations to the specification where the Examiner has not specifically identified what is objected to as indefinite. MPEP § 2111 states that "[d]uring patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.'" Also, it is only "when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language." MPEP § 2111.01. Applicants respectfully request that this blanket rejection for indefiniteness be withdrawn.

However, in order to advance the prosecution of the present application, Applicants shall provide a summary of the pertinent disclosure including references to examples supporting the claimed subject matter. Applicants shall provide citations to the '81 case supporting the pending claims, as well as a cross-reference to

corresponding sections of the '87 specification (see footnotes *infra*). The present application asserts priority to the disclosure of the '81 case, filed on November 3, 1981, as Ser. No. 317,510, and issued September 15, 1987, as U.S. Pat. No. 4,694,490. The disclosure of the '81 case is generally addressed to apparatus and methods for automatically controlling the transmission and presentation of information programming, including the application of embedded signalling for a number of functions, including the control over decryption and access, monitoring of usage/availability, control of external equipment, coordination of multiple broadcasts, automated compilation and collection of billing data, and generation and presentation of combined media presentations of broadcast and locally-generated user specific content. (U.S. Pat. No. 4,694,490, Abstract; col. 3 line 29 to col. 5 line 27). The priority disclosure further discusses coordination and control of programming at several levels of the communications chain, including transmission stations, intermediate transmission stations, and receiver stations.

Regarding the present application, the claims are generally directed to methods of communicating at a multimedia receiver station, communicating subscriber station information from a subscriber station to a remote data collection station, controlling a remote transmitter station to communicate program material to a remote receiver station, and controlling a remote intermediate transmitter station respectively. Independent claims 2 and 9 are generally directed to a method of communicating at a multimedia receiver station (See, e.g., U.S. Pat. No. 4,694,490, col 19, line 30 through col.

20 line 7, col. 7, col. 18, line 8 through col. 20, line 68)).<sup>1</sup> Independent claims 13 and 18 are generally directed to controlling transmitter stations station (See, e.g. U.S. Pat. No. 4,694,490, col 19, line 30 through col. 20 line 7, col. 7, col 9, lines 31-33, col. 10, line 14 - col. 12, line 67)<sup>2</sup>.

Applicants provide these specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and Applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter. Applicants will provide additional specification support in their detailed response to the Examiner's specific rejections provided *infra* in section B(2).

#### **NON PRIOR ART REJECTIONS**

For the reasons specified in paragraph 15 of the Office Action, claims 2-8 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Specifically, the Examiner asserts that the '87 case did not disclose the term "promoting" and seeks an explanation of its meaning and why its usage in the present application should not be considered new matter. Applicants submit that one of ordinary skill in the art would have appreciated the use of the provided general terminology in relation to the claims and specification of the present invention. Further, 35 U.S.C. § 112, first paragraph does

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<sup>1</sup> Corresponding pages in 1987 spec.: see pages 447-457, and 19-28, see also 427-447, 249-267 (line 18) 288-312, and 86-248, 469-478, 406-419, 86-93, 162-193, 197-246, 272-278., 312-324, 406-419

<sup>2</sup> Corresponding pages in 1987 spec.: see pages 447-457, and 19-28, see also 427-447, 249-267 (line 18) 288-312, and 86-248, 469-478, 37-278, 324-390.

not require that the identical words be used in the specification and the claims for support.

Notwithstanding the foregoing, regarding claims 21-28, Applicants would like to direct the Examiner's attention to the '87 disclosure, page 507, line 15 to page 508, line 34. The example illustrates a media transmission that promotes a particular product and prompts the user for an order. *See also* '87 disclosure, page 471, line 3 to page 472, line 12 (providing an example of a program devoted to the subject of cooking that promotes a recipe and prompts the user for response).

In paragraph 16 of the Office Action, the Examiner seeks support for the terms : "react", "reaction" and "instruct-to-react". Support for the word "react" is found in U.S. Pat. No. 4,694, 490 at column 20, lines 23-24, and corresponds to the '87 Specification at pp. 469-478, *see also* 463- 469 and 478-516. Regarding the word "reaction", applicants submit the following:

The established meaning of the noun "reaction" is "response to a stimulus." *Webster's II New College Dictionary*, 1995. "Stimulus" is defined as

"1. Something causing or viewed as causing a response. 2. An agent, action, or state that elicits or accelerates a physiological or psychological activity. 3. Something that incites or rouses to action." *Id.*.

- OR -

**1 a** : the act or process or an instance of reacting **b** : resistance or opposition to a force, influence, or movement; *especially* : tendency toward a former and usually outmoded political or social order or policy  
**2** : a response to some treatment, situation, or stimulus <her stunned *reaction* to the news>; *also* : such a response expressed verbally <critical *reaction* to the play>  
**3** : bodily response to or activity aroused by a stimulus: **a** : an action induced by vital resistance to another action; *especially* : the response

of tissues to a foreign substance (as an antigen or infective agent) **b** : depression or exhaustion due to excessive exertion or stimulation **c** : heightened activity and overaction succeeding depression or shock **d** : a mental or emotional disorder forming an individual's response to his or her life situation  
**4** : the force that a body subjected to the action of a force from another body exerts in the opposite direction  
**5 a** (1) : chemical transformation or change : the interaction of chemical entities (2) : the state resulting from such a reaction **b** : a process involving change in atomic nuclei

At column 19, line 42-68, an operational embodiment is described wherein a station using the signal processor apparatus and methods of the present invention is equipped with a microcomputer that "is preprogrammed to respond in a predetermined fashion to instruction signals embedded in" a programming transmission of "Wall Street Week." The preprogrammed response of the user station's microcomputer to the embedded signals is a "reaction," as per the term's established meaning.

Another instance of '81 specification support for the term "reaction" is found at column 18, line 43 to column 19, line 4. Therein is described a method for monitoring multiple programming channels and selecting programming and information in a predetermined fashion. In this example, a microprocessor of a station using the signal processor apparatus and methods of the present invention is programmed to hold a portfolio of stocks and to receive news about these stocks. News is transmitted on different channels to a converter box and a signal processor of the user station. Each news transmission is preceded with a unique signal. In a predetermined fashion, the microcomputer instructs the signal processor to hold examples of unique signals that are sought after and compare them with all of the incoming unique signals of the news

transmissions. When the signal processor identifies a sought for unique signal via the comparison, it relays information of that signal to the microcomputer. Then, in a predetermined fashion, either the microcomputer or the signal processor instructs a tuner to set the converter box to the proper channel. The signal processor's relay of information to the microcomputer and the microcomputer's or signal processor's instruction to the tuner are each a "reaction," as per the term's established meaning.

Yet another instance of support in the '81 case for the term "reaction" is found beginning at column 20, line 11. Thereafter, a method for delivering programming is described in which a viewer of a television program on cooking techniques uses a station of the present invention to accept an offer for delivery of a recipe. Halfway through the program, a program host makes an offer of delivery of a recipe. The offer prompts the viewing user to employ a local input at the station to convey a signal that indicates acceptance of the offer. With the acceptance, the recipe is delivered to the user station. The pressing of buttons by the user is a reaction in response to, elicited by and incited by a stimulus that is the program host's offer. Accordingly, a "reaction" is disclosed.

Applicants respectfully submit that the specification adequately describes and fully enables the use of the terms "react" and "reaction" in the claims as per their ordinary usage. Accordingly applicants respectfully request that, with respect to these terms, the objection to the specification, under 35 U.S.C. §112, first paragraph under 35 U.S.C. §112, first paragraph, be withdrawn. As regards the term "instruct-to-react", Applicants submit that this terminology as objected to, is not used in the claims..

In paragraph 17 of the Office Action, claims 7 and 9-12 are rejected under 35 U.S.C. §112, first paragraph, for the reasons set forth in the rejection in paragraph 16 of the Office Action noted above. Applicants accordingly respectfully request that this rejection be withdrawn for the reasons proffered in the argument in response to the rejection in paragraph 16 of the Office Action noted above.

In paragraph 18 of the Office Action, the specification is objected to as failing to provide proper antecedent basis for the claimed subject matter in the noted rejection in paragraphs 16 and 17 of the Office Action noted above. In lieu of the amendments to the claims and the reasoning set forth above, Applicants respectfully request that this objection to the specification be withdrawn.

In paragraph 19 of the Office Action, the Examiner questions where support exists in the '81 disclosure for an operational embodiment using the terms "product" as referred to in claim 2, and "coordinate " or "instruct-to-coordinate" as used in claims 2,6 and 7. Applicants respectfully submit that the established meaning of the verb coordinate, as defined by *Webster's II New College Dictionary*, 1995, is, in transitive form, "1. To place in the same order, class, or rank. 2. To harmonize in a common effort," and, in intransitive form, "To work together harmoniously." In the '81 case, at column 19, line 30 to column 20, line 10, there is described "Co-ordinating Multimedia Presentations in Time" in which programming delivered at different times to a viewer can be co-ordinated to give a multimedia presentation at one time in one place. Therein, it is described that, at 4:30 PM, closing stock prices for the day are received by the viewer's microcomputer via a digital information channel. Stock prices that relate to stocks in a stored portfolio are recorded by the viewer's microcomputer. At 8:30 PM, the "Wall

Street Week" programming transmission begins. Thus, the programming delivered at different times to one place is the closing price information of the viewer's stock and the "Wall Street Week" transmission. The programming transmission contains instruction signals that are transferred to the microcomputer. The instruction signals (instruct-to-generate signals) instruct the microcomputer to generate a graphic video overlay that represents what the stocks in the viewer's stored portfolio did in the past week. After the "Wall Street Week" host says, in the programming transmission, "here is what your portfolio did," a whole multimedia presentation simultaneously comprised of a combination of the "Wall Street Week" transmission and the graphic video overlay is given at a TV set of the viewer. In order to coordinate the delivered programming to give the multimedia presentation, an instruction signal instructs the microcomputer to transmit the graphic video overlay for as long as it receives the same instruction signal. When the instruction signal is no longer received by the microcomputer, the microcomputer ceases transmitting the overlay to the TV set. Thus, the instruction signal coordinates the transmission of the overlay with the "Wall Street Week" programming transmission to give a multimedia presentation.

Accordingly, applicants respectfully submit that the specification adequately describes and fully enables the use of the term instruct-to-coordinate in the claims as per their ordinary usage. Accordingly applicants respectfully request that, with respect to this term, the objection to the specification, under 35 U.S.C. §112, first paragraph under 35 U.S.C. §112, first paragraph, be withdrawn.

Claims 2-20 are rejected under 35 U.S.C. '112 second paragraph, as being indefinite for the reasons set forth in paragraph 20 of the Office Action. Applicants



respectfully submit that to the best of their belief, the amendments to the claims set forth in this amendment fully address the Examiner's rejections.

## **PRIOR ART REJECTIONS**

Claims 2, 4-12 and 18-20 are rejected under 35 U.S.C. '103 as being unpatentable over Campbell et al. (U.S.P. 4,536,791) in paragraph 22 of the Office Action. Applicants respectfully disagree with this action and traverse this rejection as follows.

U.S. Patent No. 4,536,791 to Campbell et al. relates to addressable cable television control systems with video format data transmission. Campbell discloses an addressable cable television control system that controls a television program and data signal transmission from a central station to a plurality of remote user stations. Campbell's data signals include both control and text signals in video line format which are inserted on the vertical interval of the television signals. An intelligent converter at each remote user location uses the data signals to control access to the system on the basis of channel, tier of service, special event and program subject matter. The converter includes apparatus for interfacing with a two-way interactive data acquisition and control system.

Campbell teaches a head end station that includes a central data system utilizing a control computer which gathers data from a wide variety of sources and formats the data for transmission on video frequency channels. The formatted data is then transmitted by communication link to a television program processor where it is incorporated into the vertical blanking intervals of video signals by a variety of television program sources. The head end unit then transmits the combined cable television and data signal to remote subscribers. Normally, the signals are then transmitted through a cable network to a plurality of subscribers. The signals are received by an addressable converter which then processes the data on line as determined by subscriber input for desired viewing on one or more television sets.

In contrast thereto, claim 2 of the present application refers to a method of communicating information at a multimedia receiver station comprising at least one receiver, a computer connected to the receiver, and a plurality of output devices connected to the receiver to permit the output of information to a subscriber. Characteristic of the method of claim 2 is the capability to detect the presence of at least two instruct-to-coordinate signals which designate at least one specific command (one or more of eight options listed in the claim), communicating at least one unit of multimedia programming in response to the at least two instruct-to-coordinate signals, and outputting multimedia programming at the receiver station.

The limitations described above are not disclosed in Campbell, nor are they taught or suggested. Campbell does not in any way contemplate the coordination of multimedia programming in response to instruct-to-coordinate signals. As described above, Campbell merely transmits television program and television control signals to an addressable converter with the capability to control access to the broadcast system on the basis of channel, tier of service and other such criteria. While the Examiner seems to offer this feature of Campbell as being suggestive of the instruct-to-coordinate features of claim 2 described above, this is clearly not the case since no element or feature of Campbell performs or suggests the coordination of any portion of the broadcast programming received by a subscriber. Accordingly, Applicants respectfully request that since Campbell neither teaches nor suggests the limitations of claim 2 of the present application, the rejection of the claim be withdrawn..

Regarding claims 3-8, Applicants respectfully submit that these claims are patentable at least by virtue of their dependence on independent claim 2.

With regard to the rejection of claim 9, Applicants submit the following. Claim 9 as amended is directed to a method of communicating subscriber station information from a subscriber station to at least one remote data collection station. In contrast to the disclosure of Campbell, the method of claim 9 is characterized in part by processing an instruct signal which is effective to coordinate a multimedia programming presentation based on a determination of subscriber input. As argued above regarding the rejection of claim 2 above, Campbell does not disclose, teach or suggest the processing of an instruct signal that is operative to coordinate multimedia programming, much less the processing of an instruct signal related to specific subscriber input. Accordingly, Applicants respectfully request that the rejection of claim 9 be withdrawn..

Regarding the rejection of claims 10-12, Applicants respectfully submit that these claims are patentable at least by virtue of their dependence on independent claim 9.

As regards the rejection of claim 18, Applicants submit the following. Claim 18, as amended, is directed to a method of controlling a remote intermediate transmitter station to communicate at least one instruct signal to at least one receiver station. In contrast to the teaching of Campbell, the method of claim 18 is characterized in part by receiving at least one instruct signal at at least one origination transmitter station, delivering at least one instruct signal to at least one origination transmitter and wherein the instruct signal is based on subscriber input and is effective to coordinate a multimedia programming presentation. Here again as argued previously, the

coordination of a multimedia presentation in response to a subscriber input based instruct signal is a feature simply not found, taught or suggested in Campbell. For these reasons and considering the arguments made above with respect to claims 2 and 9, Applicants respectfully request that the rejection of claim 18 be withdrawn.

As regards the rejection of claims 19 and 20, Applicants respectfully submit that these claims are patentable at least by virtue of their dependence on independent claim 18.

Claims 13-16 are rejected in paragraph 23 of the Office Action as being unpatentable over Campbell et al. (U.S.P. 4,536,791) in view of Lambert (U.S.P. 4,381,522). Applicants respectfully disagree with this action and traverse this rejection as follows.

A description of Campbell is provided above in the argument regarding the rejection of claim 2.

Lambert discloses a cable television system that includes a minicomputer which responds to signals from viewers desiring to see particular programming. The minicomputer provides selecting control signals that cause a particular television signal source such as video tape , cassette , disk or film to provide a video signal, that is coupled by a video switch controlled by switching control signals from the computer, for modulating a television transmitter associated with a channel selected for broadcasting the selected television program material. A signal combiner combines the signals from different television transmitters for broadcast over a cable to remote

receiving locations. A viewer at a remote receiving location may select a particular television program for viewing by dialing a telephone number to connect the telephone at the receiver station end to the minicomputer, then dialing a number corresponding to the desired program on a schedule made available to each subscriber.

In contrast to Campbell and Lambert, claim 13 as amended refers to a method of controlling a remote transmitter station to communicate program material to a remote receiver station and controlling the remote receiver station to process a receiver specific response. The method of claim 13 is characterized by the capability to coordinate a multimedia programming presentation based on subscriber reaction to information contained in a unit of mass medium programming. The method is further characterized by the capability to receive at least one control signal at the remote transmitter station. This control signal controls the communication of the mass medium programming and instruct signals between the remote transmitter station and the remote receiver station. The capability to receive at least one control signal at the remote transmitter station which in turn controls the instruct signals between the transmitter station and remote receiver station is a feature not found in either Lambert or Campbell. At best were one skilled in the art to combine the teachings of Lambert and Campbell, one would arrive at a cable television transmission system, that could broadcast a combined transmission from a number of different sources and a number of different formats wherein the combined transmission would be broadcast to subscribers via addressable converters and wherein the subscriber could request via telephone, that a particular program, scheduled to be aired at a particular time, be made available to the subscriber via the addressable converter at the receiver station. Such a system would not have the

capability of receiving control signals at the broadcast end that controlled the communication of the mass medium programming. Moreover there is nothing in Campbell or Lambert that teaches or suggests such an approach. Accordingly Applicants respectfully request that the rejection of claim 13, based on Lambert and Campbell be withdrawn.

Claims 2-20 have been rejected under the judicially created doctrine of non-obviousness, non-statutory double patenting over the patented claims in U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414. As to the double patenting rejections of paragraphs 9-13, applicants' views are fully discussed in applicants' reply brief to the rejections in application number 08/113,329, and that reply brief is incorporated by reference herein. Moreover, the claims of the present application are patentably distinct from the representative claims of U.S. Patents 4,694,490; 4,704,725; 4,965,825; and 5,109,414.

As an initial matter, the examiner's rejection of the present application under the Schneller double patenting theory based on Harvey U.S. Patents 4,694,490 and 4,704,725 is improper because the present application does not claim the benefit of those applications under 35 U.S.C. § 120. Thus, there could never have been a basis for claiming the present subject matter in those applications. Therefore, the rejection based on Harvey U.S. Patents 4,694,490 and 4,704,725 should be withdrawn.

Moreover, the PTO fails to specifically identify all claims from cited Harvey patents that cover specific claims in the present application. Rather, the Office Action references "representative claims" from patents and the present application. The Office

Action does not cite specific elements from claims in a patent covering specific elements in claims in the application. In fact, the Office Action acknowledges that the patent claims and application claims are directed to different elements, but states that this “does not prohibit this rejection if there is common or interrelated subject matter recited.” The Office Action then references Schneller in support of this erroneous statement, not supported by Schneller.

The claims in the present application are distinct from the claims in the Harvey patents. As previously mentioned, the Office Action states that the independent and distinct standard was the main factor in the Schneller court’s determination that the double patenting rejection should be affirmed. The Office Action has misinterpreted this phrase. This phrase means independent ‘or’ distinct. MPEP (6th ed.) § 802.01. The MPEP defines independent as meaning “that there is no disclosed relationship between the two or more subjects disclosed” and that they are not connected. The MPEP defines the term distinct as meaning that “two or more subjects disclosed are related . . . but are capable of separate manufacture, use, or sale as claimed . . . .” Two or more subjects cannot then be unrelated, independent, and also related, and thus distinct. Analyzing the PTO’s cited representative claims referenced in the Office Action, the claims of the present application are clearly distinct from the claims in the patents and therefore the claims in the present application are patentable. Although not required, applicants will analyze the claims of the present application with respect to the designated representative claims of Harvey U.S. Patents 4,694,490 and 4,704,725.

Claim 18 of the present application is distinct from the first representative claim, claim 7 of U.S. Patent 4,694,490.

Patent 4,694,490, claim 7 claims a method of communicating television program material, said material including a video signal containing a television program and an instruct-to-overlay signal, to multiple receiver stations. The video signal is received and the instruct-to-overlay signal detected and processed by a computer. The computer generates and transmits its overlay video signals to a television receiver which presents a combined display of the television program and overlay video signals, said display being specific to a particular user.

Claim 18 as amended refers to a method of controlling an intermediate transmitter station to communicate at least one instruct signal to at least one receiver station. In the method, an instruct signal is received at at least one origination transmitter. The instruct signal is effective at a receiver station to coordinate multimedia programming based on subscriber input. The method further features the capability to receive at least one control signal which operate at the remote receiver station to control the communication of the instruct signal.

Patent claim 7 does not cover present application claim 18. Patent claim 7 relates to instruct-to-overlay signals that are processed by a computer and received by a television receiver which presents a combined display of the instruct-to-overlay signal and a television program. Application claim 18 relates to a method of controlling a remote intermediate transmitter. The two claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.



**U.S. patent 4,694,490, claim 7**

In a method of communicating television program material to a multiplicity of receiver stations each of which includes a television receiver and computer, the computers being adapted to generate and transmit overlay video signals, to their associated television receivers, said overlay signals causing the display of user specific information related to said program material, and with at least some of said computers being programmed to process overlay modification control signals so as to modify the overlay video signals transmitted to their associated receivers, each of said computers being programmed to accommodate a specific user application, and wherein a video signal containing a television program signal and an instruct-to-overlay signal are transmitted to said receiver stations, the steps of:

receiving said video signal at a plurality of receiver stations and displaying said program material on the video receivers of selected ones of said plurality of receiver stations

detecting the presence of said instruct-to-overlay signal at said selected receiver stations at a time when the corresponding overlay is not being displayed, and coupling said instruct-to-overlay signal to the computers at said selected receiver stations, and

causing the computers at said selected receiver stations to generate and transmit their overlay video signals to their associated television receivers in response to said instruct-to-overlay signal, thereby to present a combined display at the selected receiver stations consisting of the television program and the related computer generated overlay, the overlays displayed at a multiplicity of said receiver

**Present application, claim 18 ( amended)**

A method of controlling a remote intermediate transmitter station to communicate at least one instruct signal to at least one receiver station, said remote intermediate transmitter station including one of a broadcast and cablecast transmitter, a plurality of selective transfer devices each operatively connected to said one of said broadcast and said cablecast transmitter, a receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and one of a controller and computer capable of controlling at least one of said plurality of selective transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one control signal, to control the communication of said at least one instruct signal in response to said at least one control signal, and to deliver at said one of said broadcast and said cablecast transmitter said at least one instruct signal, said method comprising the steps of:

(1) receiving said at least one instruct signal at said at least one origination transmitter station and delivering said at least one instruct signal to a at least one origination transmitter, said at least one instruct signal being effective at said at least one receiver station to coordinate a multimedia programming presentation based on a subscriber input;

(2) receiving said at least one control signal which at the remote intermediate transmitter station is operative to control the communication of said instruct signal; and

(3) transmitting said at least one control signal to said at least one origination transmitter before a specific time.

stations being different, with each display specific to a specific user.

Claim 18 of the present application is distinct from the second representative claim, claim 3 of U.S. Patent 4,704,725.

Patent 4,704,725, claim 3 claims a method of communicating output signals comprising data and user specific signals at a multiplicity of receiver stations from computers to output devices. At least some of the computers can modify the user specific signals by processing modification control signals. The computers communicate the data and user specific signals in response to a received and detected instruct-to-transmit signal.

Claim 18 as amended refers to a method of controlling an intermediate transmitter station to communicate at least one instruct signal to at least one receiver station. In the method, an instruct signal is received at at least one origination transmitter. The instruct signal is effective at a receiver station to coordinate multimedia programming based on subscriber input. The method further features the capability to receive at least one control signal which operate at the remote receiver station to control the communication of the instruct signal.

Patent claim 3 does not cover present application claim 18 Patent claim 3 relates to the communication of user specific signals. Application claim 18 relates to a method of controlling a remote intermediate transmitter. The two claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.

U.S. patent 4,704,725, claim 3

| Present application, claim 18 ( amended)

A method of communicating data to a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific signals to one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify the user specific signals transmitted to their associated output devices, each of said computers being programmed to accommodate a special user application, comprising the steps of:  
transmitting an instruct-to-transmit signal to said computers at a time when the corresponding user specific information is not being transmitted to an output device;  
detecting the presence of said instruct-to-transmit signal at selected receiver stations and coupling said instruct-to-transmit signal to the computers associated with said selected stations, and  
causing said last named computers to generate and transmit their user specific signals to their associated output devices in response to said instruct-to-transmit signal, thereby to transmit to the selected output devices an output signal comprising said data and said related user specific signals, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.

A method of controlling a remote intermediate transmitter station to communicate at least one instruct signal to at least one receiver station, said remote intermediate transmitter station including one of a broadcast and cablecast transmitter, a plurality of selective transfer devices each operatively connected to said one of said broadcast and said cablecast transmitter, a receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and one of a controller and computer capable of controlling at least one of said plurality of selective transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one control signal, to control the communication of said at least one instruct signal in response to said at least one control signal, and to deliver at said one of said broadcast and said cablecast transmitter said at least one instruct signal, said method comprising the steps of:

- (1) receiving said at least one instruct signal at said at least one origination transmitter station and delivering said at least one instruct signal to a at least one origination transmitter, said at least one instruct signal being effective at said at least one receiver station to coordinate a multimedia programming presentation based on a subscriber input;

- (2) receiving said at least one control signal which at the remote intermediate transmitter station is operative to control the communication of said instruct signal; and

- (3) transmitting said at least one control signal to said at least one origination transmitter before a specific time.

|

Claim 18 of the present application is distinct from the third representative claim, claim 24 of U.S. Patent 4,965,825.

Patent 4,965,825, claim 24 claims a method of generating user specific output information at a multiplicity of receiver stations. Each receiver station is programmed with a special user application and has a computer adapted to generate user specific output information. Each receiver station has an output device to which its computer transmits a user specific signal. At a time when the user specific output information does not exist, an instruct-to-generate signal is transmitted to the receiver stations. In response to the instruct-to-generate signal, the computers generate and transmit to the output devices the user specific output information in user specific signals which are different, "with each output signal specific to a specific user".

Claim 18 as amended refers to a method of controlling an intermediate transmitter station to communicate at least one instruct signal to at least one receiver station. In the method, an instruct signal is received at at least one origination transmitter. The instruct signal is effective at a receiver station to coordinate multimedia programming based on subscriber input. The method further features the capability to receive at least one control signal which operate at the remote receiver station to control the communication of the instruct signal.

Patent claim 24 does not cover present application claim 18. Claim 24 relates to user specific signals sent from the receiver station to an output device. Application claim 18 relates to a method of controlling a remote intermediate transmitter. The two

claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.

U.S. patent 4,965,825, claim 24	Present application, claim 18 ( amended)
<p>In a method of generating computer output at a multiplicity of receiver stations each of which includes a computer adapted to generate and transmit user specific output information content and user specific signals to one or more associated output devices, with at least one or more associated output devices, with at least some of said computers being programmed to process modification control signals so as to modify said computers' method of processing data and generating output information content, each of said computers, being programmed to accommodate a special user application, the steps of: transmitting an instruct-to-generate signal to said computers at a time when corresponding user specific output information content does not exist, and causing said last named computers to generate their user specific output information content in response to said instruct-to-generate signal, thereby to transmit to each of their associated output devices an output information content and the user specific signal of its associated computer, the output signals at a multiplicity of said output devices being different, with each output signal specific to a specific user.</p>	<p>A method of controlling a remote intermediate transmitter station to communicate at least one instruct signal to at least one receiver station, said remote intermediate transmitter station including one of a broadcast and cablecast transmitter, a plurality of selective transfer devices each operatively connected to said one of said broadcast and said cablecast transmitter, a receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and one of a controller and computer capable of controlling at least one of said plurality of selective transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one control signal, to control the communication of said at least one instruct signal in response to said at least one control signal, and to deliver at said one of said broadcast and said cablecast transmitter said at least one instruct signal, said method comprising the steps of:</p> <ol style="list-style-type: none"> <li data-bbox="820 1354 1429 1732">(1) receiving said at least one instruct signal at said at least one origination transmitter station and delivering said at least one instruct signal to a at least one origination transmitter, said at least one instruct signal being effective at said at least one receiver station to coordinate a multimedia programming presentation based on a subscriber input;</li> <li data-bbox="820 1732 1429 1873">(2) receiving said at least one control signal which at the remote intermediate transmitter station is operative to control the communication of</li> </ol>

said instruct signal; and  
(3) transmitting said at least one control signal to said at least one origination transmitter before a specific time.

Claim 18 of the present application is distinct from the fourth representative claim, claim 15 of U.S. Patent 5,109,414

Patent 5,109,414, claim 15 claims a signal processing system which receives data from a data source and outputs the data to a matrix switch and a detector, control signals are detected within the received data and stored for further processing, and a processor controls the directing functions of (1) the matrix switch which receives the data as input and can direct selected portions of the data to a data transmission means and (2) the device which stores and transfers the control signals to the processor.

Claim 18 as amended refers to a method of controlling an intermediate transmitter station to communicate at least one instruct signal to at least one receiver station. In the method, an instruct signal is received at at least one origination transmitter. The instruct signal is effective at a receiver station to coordinate multimedia programming based on subscriber input. The method further features the capability to receive at least one control signal which operate at the remote receiver station to control the communication of the instruct signal.

Patent claim 15 does not cover present application claim 18. Patent claim 15 relates to a data system that receives and processes data from a data source and includes a processor that controls the functions of a matrix switch and a storage device. Application claim 18 relates to a method of controlling a remote intermediate

transmitter. The two claims are capable of separate manufacture, use, and sale as claimed and, as such, these two inventions are distinct.

U.S. patent 5,109,414, claim 15	Present application, claim 18 (Amended)
<p>In a signal processing system,  a receiver/distribution means for receiving data from a data source and for outputting said data to a matrix switch means and a control signal detector means,  a matrix switch means for receiving said data from said receiver/distributor means and for directing selected portions of said received data to a data transmission means,  a control signal detector means for detecting control signals respecting said data and transferring said control signals to a storage/transfer means, said control signal means being configured to detect said control signals at a predetermined location within said data,  a storage/transfer means for receiving and storing said control signals and for transferring at least a portion of said control signals to a processor means for further processing, and  a processor means for controlling the directing functions of said matrix switch means and the transfer functions of said storage/transfer means based on instructions contained in said control signals.</p>	<p>A method of controlling a remote intermediate transmitter station to communicate at least one instruct signal to at least one receiver station, said remote intermediate transmitter station including one of a broadcast and cablecast transmitter, a plurality of selective transfer devices each operatively connected to said one of said broadcast and said cablecast transmitter, a receiver for receiving said at least one instruct signal from at least one origination transmitter station, a control signal detector, and one of a controller and computer capable of controlling at least one of said plurality of selective transfer devices, and with said remote intermediate transmitter station adapted to detect the presence of at least one control signal, to control the communication of said at least one instruct signal in response to said at least one control signal, and to deliver at said one of said broadcast and said cablecast transmitter said at least one instruct signal, said method comprising the steps of:</p> <ol style="list-style-type: none"> <li data-bbox="914 1360 1406 1724">(1) receiving said at least one instruct signal at said at least one origination transmitter station and delivering said at least one instruct signal to a at least one origination transmitter, said at least one instruct signal being effective at said at least one receiver station to coordinate a multimedia programming presentation based on a subscriber input;</li> <li data-bbox="914 1730 1414 1873">(2) receiving said at least one control signal which at the remote intermediate transmitter station is operative to control the communication of</li> </ol>

said instruct signal; and  
(3) transmitting said at least one  
control signal to said at least one  
origination transmitter before a specific  
time.

Claims 2-20 are rejected under the judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and other listed U.S. applications. The rejection should rightfully be a provisional rejection until one or more of the copending applications issues, at which time the rejection can be made non-provisional.

Secondly, although the rejection is stated as a judicially created obviousness double patenting rejection, the examiner's arguments are those of a Schneller non-obviousness, non-statutory double patenting rejection. Applicants' reply brief addresses the merits of the Schneller-type rejection.

The examiner's comments on the claims is acknowledged and appreciated. With respect to the assertion, in paragraph 2, that no attempt to will be made to determine the effective filing date of this application, applicant claims priority under 35 U.S.C. § 120 of the following applications:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Patent No.</u>
08/113,329	August 30, 1993	Pending
08/056,501	May 3, 1993	5,335,277
07/849,226	March 10, 1992	5,233,654
07/588,126	September 25, 1990	5,109,414
07/096,096	September 11, 1987	4,965,825

Applicants will address the art rejections of this Office Action, but traverse the assertion that a double patenting situation exists.



As to the paragraph numbered 3, applicants acknowledge their duty to maintain a line of patentable demarcation between related applications. Assuming, arguendo, that substantially duplicate claims exist, the applicants intend to make a good faith effort to alert the PTO of any instances in which the PTO treats such claims inconsistently.

As to the paragraph numbered 4, applicants acknowledge and appreciate the examiner's concern over the use of alternative claim language. Applicants assert that they believe that the disclosure supports every possible embodiment or permutation that can be created using said language. During the prosecution of this application, applicants intend to ensure that the disclosure supports each possible embodiment claimed using alternative claims.

In paragraph 10, the Office Action states that "determination of a possible non-statutory double patenting rejection obvious-type in each of the related 327 applications over each other will be deferred until a later time." Applicants submit that the examiner and the PTO cannot defer further rejections to a later time. Every ground of rejection should be made in examiner's first Office Action. 37 CFR § 1.104(a) states that "[o]n taking up an application for examination . . . the examiner shall make a thorough study thereof and shall make a thorough investigation of the available prior art relating to the subject matter of the claimed invention. The examination shall be complete with respect to both compliance of the application . . . with the applicable statutes and rules and to the patentability of the invention as claimed, as well as with respect to matters of form, unless otherwise indicated." The MPEP states "[t]he examiner's action will be complete as to all matters, except that in appropriate circumstances, such as misjoinder

of invention, fundamental defects in the application, and the like, the action of the examiner may be limited to such matters before action is made." MPEP § 707.07, citing 37 CFR § 1.105. Finally, "[p]iecemeal examination should be avoided as much as possible. The examiner ordinarily should reject each claim on all valid grounds available . . . ." "Where a major technical rejection is proper, it should be stated with full development of reasons rather than by mere conclusion coupled with some stereotyped expression." MPEP § 707.07(g). Applicants submit that the examiner has a duty to give each application a complete examination, to make rejections with specificity, and that not to defer rejections. For these reasons, applicants likewise traverse the rejection based on the "judicially created doctrine of double patenting over the claims of copending U.S. application 08/113,329 and the following [list of all applicants copending applications]." Applicants submit that this rejection, even if appropriately made with specificity, should be a provisional double patenting rejection. Applicants respectfully request that this rejection be withdrawn.

As to the grouping of paragraphs numbered 24, applicants acknowledge and appreciate the interviews provided by the PTO. Applicants also appreciate the detailed description of the interviews provided in the Office Action. The Office Action states that "the Group would like to have a complete grouping of applications in a manner that was submitted earlier for only a portion of the total filings." Applicants note that based on the Office Actions received thus far, the PTO does not appear to be following the groupings applicants submitted previously. The order of examination of applicants' applications do not seem to have any correspondence to the groupings previously submitted. Applicants, therefore, will not supply further groupings. Applicants will,